

REMARKS

Claims 4-15, 18-23, 39-47 and 49-51 are pending. Claims 39 and 40 have been amended to recite that the microstructures comprise a zwitterionic phospholipid. Claim 40 has been further amended to recite an active agent, and the list of agents in claims 22 and 50 have been amended. Support for these amendments is found throughout the specification as originally filed. Applicants respectfully submit that no new matter is introduced by this amendment and respectfully requests entry thereof.

As a preliminary matter, Applicants are resubmitting the Materne et al. reference UK Patent Application 2065659 via an IDS accompanying this response. This reference was previously submitted in the IDS of September 19, 2002. However, the reference was incorrectly identified in that IDS as UK 206569.

Claims 4-15, 18-23, 39-47 and 49-50 have been rejected under 35 U.S.C. §103 as being obvious over Hanes et al. in view of Cohen et al. or further in view of Yen. As set forth by the Examiner, Hanes et al. discloses various features of the present invention, but is silent as to the use of calcium in the composition or the pore sizes of the present invention. The Examiner relies upon the teachings of Cohen et al. to satisfy these deficiencies.

Cohen et al. discloses microparticles comprising water-soluble polymers with charged side chains that are crosslinked with multivalent ions to form a gel encapsulating biological material. Cohen et al. teaches the use of multivalent cations such as calcium and aluminum as suitable crosslinking agents.

Applicants respectfully submit that the Examiner has not provided a *prima facie* case of obviousness with respect to the presently claimed invention. In particular, there is no motivation to one of ordinary skill in the art to combine the references in the manner set forth by the Examiner. Cohen et al. teaches that multivalent cations are suitable crosslinking agents in the formation of gels with various water-soluble polymers. As stated by the Examiner, Hanes et al. teaches other materials suitable for use as the matrix material including polymers with charged side groups such as polyacrylic acids. The Examiner states that one of ordinary skill in the art would be motivated to use the cationic

The claims recite a phospholipid structural matrix. Applicants have further amended claims 39 and 40 to recite that the phospholipid microparticles of the present invention are zwitterionic. One of ordinary skill in the art would not be motivated to combine the cationic cross-linking agents of Cohen et al. with phospholipids of Hanes et al. since phospholipids are not similar to the gel forming materials of Cohen et al. Thus, there is no expectation of similar results as the phospholipids are not gel forming materials. Furthermore, not only would the proposed combination fail to form a gel, such a result would not be desirable according to the express teachings of Hanes et al. as to the formation of dispersible microparticles suitable for inhalation.

Yen relates to methods of making protein nanomatrices and products obtained thereby. The nanomatrices of Yen are intended for injection and are not concerned with inhalation. Yen fails to disclose or suggest a structural matrix comprising phospholipid and calcium as currently recited in claims 39 and 40. Thus, Yen does not satisfy the deficiencies of Hanes et al. and Cohen et al. for the reasons set forth above. Thus, the rejection is improper and should be withdrawn.

Claim 51 has been rejected as being obvious over Hanes et al. in view of Cohen et al. and further in view of Igarashi et al. Igarashi et al. is relied upon for teaching the use of aminoglycoside antibiotics for the treatment of gram-positive and gram-negative bacteria. The examiner further notes that Igarashi et al. teaches the use of calcium carbonate for the composition.

Applicants respectfully submit that Igarashi et al. fails to satisfy the deficiencies of Hanes et al. and Cohen et al. for all of the reasons set forth above as it does not suggest providing a structural matrix of phospholipid and calcium as claimed. Thus, Applicants respectfully submit that the rejection should be withdrawn.

Applicants believe that all of the pending claims are presently in condition for

allowance. If it is believed that this will expedite prosecution of the present application, the Examiner is invited to telephone the undersigned attorney at the number below

Respectfully submitted,

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